

IN THE CLAIMS

Amend claims 1, 3, 4, 6, 9, 13-14, 16-18 and 20-21 to read:

gub
A¹
1. A method for preparing a grain containing starch with increased total dietary fiber content comprising heating a base grain having a total moisture content of from about 20% to about 45% by weight based on the dry weight of the grain, at a temperature of from about 90°C to about 130°C for a period of about 0.5 to 24 hours, under a combination of moisture and temperature conditions such that the starch does not have its granular structure completely destroyed and to provide a heat-treated-grain having an increase in total dietary fiber content ("TDF") of at least 10%.

A²
3. The method of Claim 1 wherein the base grain contains a starch having at least 40% by weight amylose content.

4. The method of Claim 1, wherein the temperature is between about 90 °C to about 125 °C.

A³
6. The method of Claim 1 wherein the base grain contains a granular starch that has at least 65% by weight amylose content.

A⁴
9. The method of Claim 1 wherein the base grain is obtained from a plant source having an amylose extender genotype, the starch comprising less than 10% amylopectin determined by butanol fractionation/exclusion chromatography measurement.

A⁵
13. The grain of Claim 11 having a higher onset temperature than a corresponding un-treated grain.

14. The grain of Claim 13 having a higher delta H than a corresponding untreated grain.

A⁶
16. The grain of Claim 11 wherein the amylose content is between about 50 to about 69% by weight of the starch and having a TDF of at least than 45%.

17. The grain of Claim 11 wherein the amylose content of the starch is between about 70 and about 89% and having a TDF content of at least 58%.

18. The grain of Claim 11 wherein the amylose content of the starch is greater than 90% and having a TDF content of at least 75%.

20. A food product containing a grain prepared by the method of Claim 1.

21. The food product of Claim 20, wherein the food is selected from the group consisting of cereal, bread, crackers, cookies, cakes, pasta, beverages, fried and coated foods, snacks, dairy products, and cheeses.

Delete claim 2.


Add new claims 22-41 to read:

22. A method for preparing a grain containing starch with increased total dietary fiber content comprising heating a grain containing starch having at least about 40% by weight amylose, said grain having a total moisture content of from about 8% to about 85% by weight based on the dry weight of the grain, at a temperature of from about 65°C to about 150°C, under a combination of moisture and temperature conditions to provide a heat-treated-grain having an increase in total dietary fiber content ("TDF") of at least 10%.

23. The method of Claim 22, wherein the starch does not have its granular structure completely destroyed.

24. The method of Claim 22 wherein the total moisture content of the base grain is from about 24% to about 55% and the temperature is between about 90 °C to about 125 °C.

25. The method of Claim 22 wherein the base grain is corn.

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26. The method of Claim 22 wherein the base grain contains a granular starch that has at least 65% by weight amylose content.
27. The method of Claim 22 wherein the base grain is degerminated.
28. The method of Claim 22 wherein the total moisture content of the base grain is from about 20% to about 45% and the temperature is between about 90 °C to about 125 °C.
29. The method of Claim 22 wherein the base grain is obtained from a plant source having an amylose extender genotype, the starch comprising less than 10% amylopectin determined by butanol fractionation/exclusion chromatography measurement.
30. The method of Claim 29 wherein the base grain has a total moisture content of from about 20% to about 35% and the heating is at a temperature of from about 90 to 120°C.
31. A grain made by the method of Claim 22.
32. The grain of Claim 31 having an increase in TDF content of greater than 30%.
33. The grain of Claim 31 having a higher onset temperature than a corresponding untreated grain.
34. The grain of Claim 33 having a higher delta H than a corresponding untreated grain.
35. The grain made by the method of Claim 22 having a higher TDF and RS than a corresponding untreated grain.

36. The grain of Claim 31 wherein the amylose content is between about 50 to about 69% by weight of the starch and having a TDF of at least than 45%.

37. The grain of Claim 31 wherein the amylose content of the starch is between about 70 and about 89% and having a TDF content of at least 58%.

38. The grain of Claim 31 wherein the amylose content of the starch is greater than 90% and having a TDF content of at least 75%.

39. A starch isolated from the heat-treated grain of Claim 31.

40. A food product containing a grain prepared by the method of Claim 22.

41. The food product of Claim 40, wherein the food is selected from the group consisting of cereal, bread, crackers, cookies, cakes, pasta, beverages, fried and coated foods, snacks, dairy products, and cheeses.

STATUS OF THE CLAIMS

Claims 1-21 were pending.

Claims 1-20 have been rejected under 35 U.S.C. § 112 for indefiniteness.

Claims 1, 2, 4, 5, 8, and 10-15 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Whitney, et al. (US 5,972,413).

Claims 3, 6-7, 9 and 16-21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Whitney, et al. (US 5,972,413) in view of Ferguson, et al. (US 5,300,145).

Claims 22-41 have been added.

Claim 2 has been deleted.

Claims 1, 4, 4, 6, 9, 11, 13-14, 16-18, and 20-21 have been amended. A marked up version of the amended claims is included as Appendix A.

Claims 1 and 3-41 are presented for reconsideration. A clean copy of the claims as pending is included as Appendix B.

REMARKS

Claims 1-20 have been rejected under 35 U.S.C. § 112 for indefiniteness. The phrase "a combination of moisture and heat conditions" has been deemed unclear. This phrase is intended to mean the process conditions are a combination of a moisture in the range of from about 8 to about 85% and a temperature in the range of from about 65°C to about 150°C which will result in the increase in TDF of at least 10%.

Claims 2 has been rejected as the term "the granular structure" does not have antecedent basis. Claim 1 has been amended to clarify that the grain contains starch. Descriptive basis for this may be found in the specification. This amendment does not change the scope of the claim as all grains naturally contain starch. Claim 2 has been deleted.

Claim 9 has been rejected as the term "the component granular starch" does not have antecedent basis. Claim 9 has been amended to remedy this